WHAT IS CLAIMED IS:

1. An isolated nucleic acid containing the following nucleotide sequence:

rchd005 (SEQ ID NO.:1),
rchd024 (SEQ ID NO.:2),
rchd032 (SEQ ID NO.:3),
rchd036 (SEQ ID NO.:4),
rchd502 (SEQ ID NO.:5),
rchd523 (SEQ ID NO.:6),
rchd528 (SEQ ID NO.:7), or
rchd534 (SEQ ID NO.:36).

or the nucleotide sequence of a gene or gene fragment contained in the following clone as deposited with the NRRL:

pRCHD005 (in NRRL Accession No. B-21376),
pRCHD024 (in NRRL Accession No. B-21377),
pRCHD032 (in NRRL Accession No. B-21378),
pRCHD036 (in NRRL Accession No. B-21379),
pRCHD502 (in NRRL Accession No. B-21380),
pRCHD523 (in NRRL Accession No. B-21381),
pFCHD523 (in NRRL Accession No. ),
pRCHD528 (in NRRL Accession No. B-21382), or
pFCHD534 (in NRRL Accession No. ).

2. An isolated nucleic acid which hybridizes under stringent conditions to the nucleotide sequence of Claim 1 or its complement, or to the gene or gene fragment contained in the clone of Claim 1 as deposited with the NRRL.

3. An isolated nucleic acid which encodes an amino acid sequence encoded by the nucleotide sequence of Claim 1 or its complement, or the gene or gene fragment contained in the clone of Claim 1 as deposited with the NRRL.

4. A nucleotide vector containing the nucleotide sequence of Claim 1, 2 or 3.

5. An expression vector containing the nucleotide sequence of Claim 1, 2 or 3 in operative association with a nucleotide regulatory element that controls expression of the nucleotide sequence in a host cell.

6. A genetically engineered host cell containing the nucleotide sequence of Claim 1, 2 or 3.

7. A genetically engineered host cell containing the nucleotide sequence of Claim 1, 2 or 3 in operative association with a nucleotide regulatory element that controls expression of the nucleotide sequence in the host cell.

8. A substantially pure gene product encoded by the nucleic acid of Claim 1, 2, or 3.

9. An antibody that immunospecifically binds the gene product of Claim 8.

10. A transgenic animal in which the nucleic acid of Claim 1, 2 or 3 is an expressed transgene contained in the genome of the animal.

11. A transgenic animal in which expression of genomic sequences encoding the gene product of Claim 8 is prevented or suppressed.

12. A method for diagnosing cardiovascular disease, comprising detecting, in a patient sample, a gene or its gene product which is differentially expressed in cardiovascular disease states.

13. The method of Claim 12 in which the cardiovascular disease is atherosclerosis.

14. The method of Claim 12 in which the cardiovascular disease is ischemia/reperfusion.

15. The method of Claim 12 in which the cardiovascular disease is hypertension.

16. The method of Claim 12 in which the cardiovascular disease is restenosis.

17. The method of Claim 12 in which the gene is up-regulated in individuals genetically predisposed to cardiovascular disease.

18. The method of Claim 17 in which the gene encodes a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homolog of rat matrin F/G protein, an endoperoxide synthase type II protein, an rchd523 protein, an rchd528 protein, or an rchd534 protein.

19. The method of Claim 12 in which the gene is down-regulated in individuals genetically predisposed to cardiovascular disease.

20. The method of Claim 19 in which the gene encodes a glutathione peroxidase protein or a Bcl-2 protein.

21. The method of Claim 12 in which the gene is up-regulated by treatment with IL-1.

22. The method of Claim 21 in which the gene encodes an Na-K-Cl cotransporter protein homologue, an rchd024 protein, an rchd032 protein, an rchd036 protein, or an endoperoxide synthase type II protein.

23. The method of Claim 12 in which the gene is up-regulated by treatment with shear stress.

24. The method of Claim 23 in which the gene encodes an Na-K-Cl cotransporter protein homologue, an rchd024 protein, a rat matrin F/G protein homologue, an endoperoxide synthase type II protein, an rchd523 protein, an rchd528 protein, or an rchd534 protein.

25. The method of Claim 12 wherein the gene is down-regulated by treatment of individuals with a high fat/high cholesterol diet.

26. The method of Claim 25 in which the gene encodes a glutathione peroxidase protein or a Bcl-2 protein.

27. A method for treating cardiovascular disease, comprising administering a compound that modulates the synthesis or expression of a target gene, or the activity of a target gene product to a patient in need of such treatment.

28. The method of claim 27 in which the cardiovascular disease is atherosclerosis.

29. The method of claim 27 in which the cardiovascular disease is ischemia/reperfusion.

30. The method of claim 27 in which the cardiovascular disease is hypertension.

31. The method of claim 27 in which the cardiovascular disease is restenosis.

32. The method of Claim 27 in which the compound inhibits the expression of the target gene, or the synthesis or activity of the target gene product.

33. The method of Claim 32 in which the gene encodes a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homolog of rat matrin

F/G protein, an endoperoxide synthase type II protein, an rchd523 protein, an rchd528 protein, or an rchd534 protein.

34. The method of Claim 27 in which the compound is an antisense or ribozyme molecule that blocks translation of the target gene.

35. The method of Claim 34 in which the gene encodes a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homologue of rat matrin F/G protein, an endoperoxide synthase type II protein, and rchd523 protein, an rchd528 protein, or an rchd534 protein.

36. The method of Claim 27 in which the compound is complementary to the 5′ region of the target gene and blocks transcription via triple helix formation.

37. The method of Claim 36 in which the gene encodes a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homologue of rat matrin F/G protein, an endoperoxide synthase type II protein, and rchd523 protein, an rchd528 protein, or an rchd534 protein.

38. The method of Claim 27 in which the compound is an antibody that neutralizes the activity of the target gene product.

39. The method of Claim 38 in which the gene product is a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homologue of rat matrin F/G protein, an endoperoxide synthase type II protein, and rchd523 protein, an rchd528 protein, or an rchd534 protein.

40. The method of Claim 27 in which the compound enhances the expression of the target gene, or the synthesis or activity the target gene product.

41. The method of Claim 40 in which the target gene encodes Bcl-2 or glutathione peroxidase.

42. A method for treating cardiovascular disease, comprising administering nucleic acid encoding an active target gene product to a patient in need of such treatment.

43. The method of Claim 42 in which the nucleic acid encodes Bcl-2 or glutathione peroxidase.

44. A method for treating cardiovascular disease, comprising administering an effective amount of a target gene product to a patient in need of such therapy.

45. The method of Claim 44 in which the gene product is Bcl-2 or glutathione peroxidase.

46. A method of monitoring the efficacy of a compound in clinical trials for the treatment of cardiovascular disease, comprising detecting, in a patient sample, a gene or its gene product which is differentially expressed in cardiovascular disease states.

47. The method of Claim 46 in which the cardiovascular disease is atherosclerosis.

48. The method of Claim 46 in which the cardiovascular disease is ischemia/reperfusion.

49. The method of Claim 46 in which the cardiovascular disease is hypertension.

50. The method of Claim 46 in which the cardiovascular disease is restenosis.

51. The method of Claim 46 in which the gene is up-regulated in individuals genetically predisposed to cardiovascular disease.

52. The method of Claim 51 in which the gene encodes a Na-K-Cl cotransporter protein homologue, an rchd024 protein, and rchd032 protein, an rchd036 protein, a homolog of rat matrin F/G protein, an endoperoxide synthase type II protein, and rchd523 protein, an rchd528 protein, or an rchd534 protein.

53. The method of Claim 46 in which the gene is down-regulated in individuals genetically predisposed to cardiovascular disease.

54. The method of Claim 53 in which the gene encodes a glutathione peroxidase protein or a Bcl-2 protein.

55. The method of Claim 46 in which the gene is up-regulated by treatment with IL-1.

56. The method of Claim 55 in which the gene encodes an Na-K-Cl cotransporter protein homologue, an rchd024 protein, an rchd032 protein, an rchd036 protein, or an endoperoxide synthase type II protein.

57. The method of Claim 46 in which the gene is up-regulated by treatment with shear stress.

58. The method of Claim 57 in which the gene encodes an Na-K-Cl cotransporter protein homologue, an rchd024 protein, a rat matrin F/G protein homologue, an endoperoxide synthase type II protein, an rchd523 protein, an rchd528 protein, or an rchd534 protein.

59. The method of Claim 46 wherein the gene is down-regulated by treatment of individuals with a high fat/high cholesterol diet.

60. The method of Claim 59 in which the gene encodes a glutathione peroxidase protein or a Bcl-2 protein.

61. A method for identifying a compound that modulates the activity of a multiple transmembrane domain receptor target gene product, comprising:

contacting a first cell expressing the multiple transmembrane domain receptor target gene product with a test compound and an activator of the multiple transmembrane domain receptor target gene product, measuring the level of intracellular calcium release within the first cell and comparing the level to that of a second multiple transmembrane domain receptor target gene product-expressing cell which has been contacted with the activator but not with the test compound so that if the level of intracellular calcium release within the first cells differs from that of the second cell, a compound which modulates the activity of a multiple transmembrane domain receptor target gene product has been identified.

62. The method of Claim 61 wherein the multiple transmembrane domain receptor target gene product is an rchd523 gene product.

63. The method of Claim 61 wherein the cell is a Xenopus oocyte cell.

64. The method of Claim 61 wherein the cell is a myeloma cell.

65. The method of Claim 18 in which the gene encodes an rchd523 protein.

66. The method of Claim 18 in which the gene encodes an rchd534 protein.